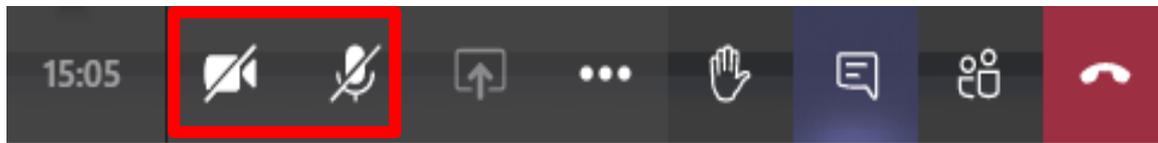


Welcome!

The webinar will begin shortly.

Please make sure your microphone is muted and camera turned off!



Making Substantial Damage Determinations

Jennifer Gilbert, CFM

NH State National Flood Insurance Program
Coordinator

Samara Ebinger, CFM

Principal Planner



Agenda

- Key Points from Substantial Improvements Webinar
- Substantial Damage (SD) Defined
- Making SD Determinations
- Preparing for a Large-Scale Disaster
- Connections with FEMA Grants/Flood Insurance
- Going Beyond Minimum Requirements
- Resources/Wrap Up

Substantial Improvement Webinar - Review



Community Floodplain Regulations

- Adoption and enforcement of floodplain regulations that **meet minimum National Flood Insurance Program (NFIP) requirements** is required for a community to remain in good standing in the program.

The screenshot shows the City of Nashua, NH website. The header includes the city name and Hillsborough County. A navigation bar contains Home, Help, and a search field. A sidebar on the left lists Code, New Laws (9), and Index. The main content area shows a breadcrumb trail: City of Nashua, NH / Part II, General Legislation / Land Use / Zoning Districts and Supplemental Use Regulations, followed by Article VII Floodplain Management. Below this, there are two expandable sections: § 190-59 Title and § 190-60 Applicability.

ZONING ORDINANCE & BUILDING CODES OF THE TOWN OF HAMPTON, NH

Substantial Damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

Substantial Improvement means any combination of repairs, reconstruction, alteration, or improvements to a structure in which the cumulative cost equals or exceeds fifty (50) percent of the market value of the structure. The market value of the structure should equal:

- a. the appraised value prior to the start of the initial repair or improvement, or
- b. in the case of damage, the value of the structure prior to the damage occurring.

For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. This term includes structures that have incurred substantial damage, regardless of actual repair work performed. The term does not, however, include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

Violation means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the

The Substantial Improvement (SI) Provision

- Definition included in your community's floodplain ordinance.
- Proposed development in a Special Flood Hazard Area that is determined to be an SI must meet applicable requirements in the ordinance.
- Enforcement of this provision is a minimum NFIP requirement for all participating communities.

SECTION 10 – STRUCTURE REQUIREMENTS

- A. New construction of a residential structure, or an existing residential structure to be substantially improved or replaced, or that has incurred substantial damage, located in a special flood hazard area shall have the lowest floor elevated at least one foot above the base flood elevation.
- B. New construction of a non-residential structure, or an existing non-residential structure to be substantially improved or replaced, or that has incurred substantial damage, located in a special flood hazard area shall:
 - 1. Have the lowest floor elevated at least one foot above the base flood elevation; or
 - 2. Together with attendant utility and sanitary facilities:
 - a. Be floodproofed at least one foot above the base flood elevation so that below this elevation the structure is watertight with walls substantially impermeable to the passage of water;
 - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and
 - c. Be certified by a registered professional engineer or architect that the dry floodproofing design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided to the Floodplain Administrator in the form of a completed and signed Floodproofing Certificate for Non-Residential Structures.
- C. A fully enclosed area for new construction of a structure, or an existing structure to be substantially improved or replaced, or that has incurred substantial damage located in a special flood hazard area that is below the lowest floor of a structure, below the base flood elevation, and therefore, subject to flooding, shall meet the following

Intent of the SI/SD Provisions

- To break the cycle of disaster damage, reconstruction, and repeated damage.
- Best opportunity for older building stock to be brought up to modern flood damage-resistant building standards.
- Reduces future costs associated with flood damage and keeps residents safer.



“Substantial Damage” (SD) Defined



The Substantial Damage Provision

- Definition included in your community's floodplain ordinance.
- Referenced in the Substantial Improvement definition in the ordinance.
- Enforcement of this provision is a minimum NFIP requirement for all participating communities.



Substantial Improvement Definition

Substantial Improvement: means any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of **which equals or exceeds 50 percent of the market value** of the structure before the “start of construction” of the improvement.

Still applies!

The term includes structures which have incurred “Substantial Damage”, regardless of the actual repair work performed.

The term does **not**, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a “historic structure,” provided that the alteration will not preclude the structure's continued designation as a “historic structure.”

Historic Structures Definition

Historic Structure means any structure that is:

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (i) by an approved state program as determined by the Secretary of the Interior; or
 - (ii) directly by the Secretary of the Interior in states without approved programs.

Substantial Damage Definition

Substantial Damage (SD) means damage of **any origin** sustained by a structure whereby the cost of restoring the structure would **equal or exceed 50 percent of the market value** of the structure before the damage occurred.

$$\text{Percent Damage} = \frac{\text{Cost of Repairs}}{\text{Pre-Damage Market Value of Structure}}$$

State-Specific Requirements

- **Massachusetts – State Building Code**

SUBSTANTIAL REPAIR OF A FOUNDATION. When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet, or repair or replacement of 50% of the piles, columns or piers of a pile, column or pier supported foundation, the building official shall determine it to be substantial repair of a foundation. Applications determined by the building official to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of 780 CMR.

Making Substantial Damage Determinations



Factors that May Result in SD



- Flooding, especially:
 - Above first floor
 - Extended duration
 - High velocities
- Damage of any other origin
 - Fire
 - High winds
 - Earthquake
 - Tornado
- Combination of factors

Community Substantial Damage Responsibilities

1. Verify if SD determinations must be made. (e.g., Damaged structure(s) located in the Special Flood Hazard Area).
2. Communicate to property owners the need for SD determination and a permit prior to rebuilding.
3. Verify the cost of repairs to the structure.
4. Verify the market value of the structure.
5. Make the SD determination and issue it to property owner.
6. Permit development/ensure compliance with community ordinance.
7. Maintain documentation.

Initial Steps

- Are damaged buildings located in the Special Flood Hazard Area?
- How will you communicate SD determination/permitting requirements to property owners?

Approach may vary depending on the situation:

- One or several buildings damaged
- Many buildings damaged



Substantial Improvement/Damage Application Packet and Property Owner Guide

- Ensures that applicants submit the necessary information for community to make an SI/SD determination.
- Helps you communicate information about SI/SD to applicants and treat all applicants consistently.
- Makes it easier to document determinations and retain the documentation in community's permanent records.

Substantial Improvement and Substantial Damage Application Packet for Structures Located in Special Flood Hazard Areas

As a participating community of FEMA's National Flood Insurance Program (NFIP), the [Insert Municipality's Name] has adopted and enforces at least the minimum NFIP requirements in its [Insert Name of the Municipal Document where floodplain regulations can be found] in order to protect lives and property from future flood damages. These requirements are also included in the State's Building Code (2015 IBC (Section 104.2.1) and IRC (R105.3.1.1)). The community must adopt and enforce these requirements in order to continue to participate in the NFIP and in order for federally-backed flood insurance to be made available to all residents.

The purpose of this Application Packet is for property owners to provide the community with the required information in regards to any proposed reconstruction, rehabilitation, repairs, addition, or other improvements to a structure that is located in a Special Flood Hazard Area. The application documents, which must be completed and submitted by the applicant to the community, will be used to assist the community in making their substantial improvement or substantial damage determination in a fair and consistent manner.

Please review the Application Packet Checklist and documentation to ensure an understanding of what is required to obtain a community floodplain development permit for the proposed development. Please also review the *Property Owner Guide to Understanding Community Substantial Improvement and Substantial Damage Requirements for Structures located in Special Flood Hazard Areas*. This document provides property owners with information about the community's floodplain requirements and the process the community must follow to make these determinations of substantial improvement or substantial damage.

Please contact the following for any questions or assistance:

Insert Name of Municipal Official and their Title or Community Department and Contact Information

Substantial Improvement/Damage Application Packet

Substantial Improvement or Substantial Damage Application Packet Checklist

The following is the checklist of the documents that an applicant must submit as part of the community permits application process for substantial improvement or substantial damage of structure located in a Special Flood Hazard Area. |

APPLICANT MUST SUBMIT ALL OF THE FOLLOWING (please check off each item):

- Completed and signed application** for substantial damage/improvement review (included in this packet).
- Completed, Certified, and Signed FEMA Elevation Certificate** with elevations for the existing structure, which will be used to determine what measures will be needed to bring the existing structure into compliance.
- Current Photographs** of the structure's exterior (front, rear, sides). If the structure has been damaged, include photographs of the interior and exterior and, if available, pre-damaged photos of the exterior.
- Estimated Cost** of reconstruction/improvement form (included in this packet) and all supporting documents. Include subcontractor's bids and itemized cost lists (see footnote on Cost Estimate Form).
- Property Owner's Affidavit** signed and dated (included in this packet).
- Contractor's Affidavit** signed and dated (included in this packet).
- This Checklist.**

Floodplain Development Application for Substantial Improvement/Substantial Damage

Completion of this application along with the Floodplain Development Permit Application is required for any proposed addition, renovation, repair, and/or maintenance to an existing residential or non-residential structure or manufactured home located in the Special Flood Hazard Area (SFHA) shown on the community's Flood Insurance Rate Map (FIRM).

Please check:
 I have read and understand the Property Owner Guide to Understanding Community Substantial Improvement and Substantial Damage Requirements for Structures Located in Special Flood Hazard Areas.

Date: _____

Contact Information for the Structure:

Property Owner Name: _____ Contractor Name: _____

Property Owner Phone Number: _____ Contractor Phone Number: _____

The primary contact person for this project is the Property Owner Contractor (Check one)

Property Information for the Structure

Property Address: _____

Tax Map No. _____ Lot No. _____

Original Construction Date of Current Structure: _____

Flood Zone: _____ Base Flood Elevation: _____ Structure located in regulatory floodway? Yes No

Is the structure listed on the National Register of Historic Places or other such registry for historic buildings? Yes No

If yes, please provide the Registry name and number that applies: _____

Market Value of the Structure

Check one of the following:

- I accept the community's tax assessment value of the structure.
- I have attached a market value appraisal of the structure prepared by a licensed professional appraiser.

Signature

Property Owner's or Contractor's Signature: _____

Date: _____

Cost Estimate of Reconstruction / Improvement

Property Address: _____

Parcel ID Number: _____

This cost estimate of reconstruction/improvement must be prepared by and signed by the contractor or by the owner if the owner acts as the contractor. Owners who act as their own contractors must estimate their labor cost—the current market value for any work they intend to perform, including construction supervision costs.

	Sub-Contractor Bids		Contractor or Owner Estimates	
	Bid Amounts (see note "D")		Material Costs	Labor Costs
1 Masonry/Concrete				
2 Carpentry Material (rough)				
3 Carpentry Labor (rough)				
4 Roofing				
5 Insulation and Weather-Strip				
6 Exterior Finish (Siding/Stone/etc)				
7 Doors, Windows & Shutters + Trim				
8 Lumber Finish				
9 Hardware				
10 Drywall				
11 Cabinets (Bath-In)				
12 Floor Covering				
13 Plumbing (rough)				
14 Shower / Tub / Toilet / Sinks				
15 Electric & Light Fixtures				
16 Kitchen/Couentertops/Baths-Inc				
17 Beds/Stairs/Guards & Rails				
18 HVAC				
19 Paint				
20 Demolition & Removal				
21 Overhead & Profit				
22 Construction Supervision Costs				
Subtotals:				
Total Estimate Cost (all three subtotals added together)				

- A. A copy of the signed construction contract must accompany this estimate.
- B. Subcontractor bids may be used for any material and/or labor cost breakdown. INCLUDE donations and volunteer labor.
- C. If any amounts appear in the "Sub-contractor" columns, a copy of each signed and dated bid must accompany this form.
- D. Cost backup must be provided for every line item entry. If any amounts appear in the "Sub-contractor" column, a copy of each signed and dated bid must accompany this form. For all other costs, you must list the quantity of materials to be installed and their unit cost on a separate sheet that references the line number.

For example, the backup documentation may contain a section called "Drywall to be installed (line 10)":

This Sheet (Line 10)	Separate Sheet
Materials: \$2,000.00	1,000 L.F. Drywall @ \$2.00/L.F. = \$2,000.00
Labor: \$320.00	16 MH to Hang Drywall @ \$20.00 / MH = \$320.00

Property Owner Guide to Understanding Community SI and SD Requirements

Property Owner Guide to Understanding Community Substantial Improvement and Substantial Damage Requirements for Structures Located in Special Flood Hazard Areas

As a participating community of FEMA's National Flood Insurance Program (NFIP), the [Insert Municipality's Name] has adopted and enforces at least the minimum NFIP requirements in its [Insert Name of the Municipal Document where floodplain regulations can be found] in order to protect lives and property from future flood damages. These requirements are also included in the State's Building Code (2015 IBC (Section 104.2.1) and IRC (R105.3.1.1)). The community must adopt and enforce these laws in order to continue to participate in the NFIP and in order for federally-backed flood insurance to be made available to all residents.

The purpose of this document is to provide property owners with information about the community's floodplain requirements in regards to any proposed reconstruction, rehabilitation, repairs, addition, or other improvements to a structure that is located in a Special Flood Hazard Area. The application documents that must be completed and submitted to the community are to assist the community in making their substantial improvement or substantial damage determination in a fair and consistent manner.

Please review this document to understand the process the community must follow to make these determinations of substantial improvement or substantial damage. Please also review the Substantial Improvement/Damage Application Packet, which includes the application form and required accompanying documents.

Please contact the following for any questions or assistance:

Insert Name of Municipal Official and their Title or Community Department and Contact Information

Definitions to Know:

"SUBSTANTIAL IMPROVEMENT" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the improvement.

"SUBSTANTIAL DAMAGE" means damage of any origin (not just flooding) sustained by a structure where the cost of restoring the structure to its before-damage condition would equal or exceed 50% of the market value of the structure before the damage occurred.

The above definitions come from the NH state model ordinance. If the definitions in the community's floodplain regulations differ from these listed above, please revise the definitions above to match the community's definitions.

FEMA Resources to Review:

Substantial Improvement/Damage Desk Reference (FEMA P-758, 2010)
<https://www.fema.gov/media-library/assets/documents/18562>

Answers to Questions about Substantially Improved/Substantially Damaged Buildings (FEMA 213, 2018)
<https://www.fema.gov/media-library/assets/documents/169099>

Substantial Improvement or Substantial Damage Items to be Included

ALL STRUCTURAL ELEMENTS AND EXTERIOR FINISHES INCLUDING:

- Spread or continuous foundation footings and pilings
- Monolithic or other types of concrete slabs
- Bearing walls, tie beams and trusses
- Wood or reinforced concrete decking or roofing
- Joist, beams, subflooring, framing, and ceilings
- Attached decks and porches
- Interior non-bearing and partition walls
- Exterior wall finishes (e.g., brick, stucco or siding) including painting and decorative moldings
- Windows and exterior doors
- Re-shingling or re-tilling a roof
- Hardware

ALL INTERIOR FINISH ELEMENTS, INCLUDING:

- Tiling, linoleum, stone or carpet over sub-flooring
- Bathroom tiling and fixtures
- Wall finishes (e.g., drywall, painting, stucco, plaster, paneling, marble or other decorative finishes)
- Kitchen, Counter-tops, utility and bathroom cabinets
- Built-in bookcases, cabinets and furniture
- Hardware
- Insulation

ALL UTILITY AND SERVICE EQUIPMENT, INCLUDING:

- HVAC equipment
- Repair or reconstruction of plumbing and electrical services
- Light fixtures and ceiling fans
- Security systems
- Built-in kitchen appliances
- Central vacuum systems and Generators
- Water filtration, conditioning or recirculation systems
- Solar panels and equipment

See next page for additional costs to include

OTHER COSTS:

- Materials and labor, including the estimated value of donated or discounted materials and owner or volunteer labor (see box below)
- Site preparation related to the improvement or repair, such as foundation excavation or filling in basements
- Demolition and construction debris removal
- Labor and other costs associated with demolishing, removing or altering structure components to accommodate improvements, additions, and making repairs
- Costs associated with complying with other requirements and codes that may be triggered by the work
- Overhead and profit
- Construction management and supervision

USE OF DONATED MATERIALS AND/OR OWNER OR VOLUNTEER LABOR

The value of any donated materials and volunteer labor must be included in the cost estimate.

To determine the value of donated materials, especially in regards to Substantial Damage, use the "pre-storm" normal retail cost for each item donated.

Labor cost estimates should reflect applicable wage scales for the type of construction work to be performed regardless of whether the labor is to be paid, provided by the owner or volunteered.

Verify Repair Costs

Acceptable sources of cost information include:

- Itemized construction cost estimates prepared by licensed contractors (Template available in SI/SD Application Packet).
- Building valuation tables published by building code organizations and other professional building cost-estimating services.
- FEMA Substantial Damage Estimator (SDE) tool.

Cost Estimate of Reconstruction / Improvement

Property Address: _____

Parcel ID Number: _____

This cost estimate of reconstruction/improvement must be prepared by and signed by the contractor or by the owner if the owner acts as the contractor. Owners who act as their own contractors must estimate their labor cost at the current market value for any work they intend to perform, including construction supervision costs.

	Sub-Contractor Bids	Contractor or Owner Estimates	
	Bid Amounts (see note *D)	Material Costs	Labor Costs
1 Masonry/Concrete			
2 Carpentry Material (rough)			
3 Carpentry Labor (rough)			
4 Roofing			
5 Insulation and Weather-strip			
6 Exterior Finish (Siding/Stucco etc)			
7 Doors, Windows & Shutters + (Trim)			
8 Lumber Finish			
9 Hardware			
10 Drywall			
11 Cabinets (Built-in)			
12 Floor Covering			
13 Plumbing (rough)			
14 Shower / Tub / Toilet / Sinks			
15 Electrical & Light Fixtures			
16 Kitchen/Countertops/Built-ins			
17 Decks/Stairs/Guards & Rails			
18 HVAC			
19 Paint			
20 Demolition & Removal			
21 Overhead & Profit			
22 Construction Supervision Costs			
Subtotals:			
Total Estimate Cost (all three subtotals added together)			

A. A copy of the signed construction contract must accompany this estimate.
 B. Subcontractor bids may be used for any material and/or labor cost breakdown. INCLUDE donations and volunteer labor.
 C. If any amounts appear in the "Sub-contractor" column, a copy of each signed and dated bid must accompany this form.
 D. Cost backup must be provided for every line item entry. If any amounts appear in the "Sub-contractor" column, a copy of each signed and dated bid must accompany this form. For all other costs, you must list the quantity of materials to be installed and their unit cost on a separate sheet that references the line number.

For example, the backup documentation may contain a section called "Drywall to be installed (Line 10)":

<u>This Sheet (Line 10)</u>	<u>Separate Sheet</u>
Materials: \$2,000.00	1,000 s.f. 1/2" Drywall @ \$2.00/s.f. = \$2,000.00
Labor: \$320.00	16 MH to Hang Drywall @ \$20.00 / MH = \$320.00

Which Costs Should Be Included?

- Costs directly associated with the repair of the building.
- Must include all costs even when donated or discounted.
- Must include all labor even when self-done or volunteer labor.
- Cost should be calculated for full repair to the building's before-damage condition, even if the owner elects to do less.
- Cost of any improvements the owner has opted to have performed during the repair project should also be included.

Which Costs Should NOT Be Included?

- Costs not directly associated with building (e.g. landscaping, well, engineering or permits).
- Any costs required to correct existing violations of state or local health, sanitary, or safety code specifications.

SI/SD Costs

Costs that must be included

- Materials and labor
estimated value of all labor and materials, including value of donated/discounted materials and owner or volunteer labor
- Site prep work
- Demolition and construction debris removal
- Exterior (foundation, exterior finishes, windows, doors, attached deck/porches)
- Interior finishes (flooring, wall finishes, built-in cabinets)
- Utilities (HVAC, plumbing, electrical, lighting, built-in appliances, security systems)

Costs that can be excluded

- Clean-up/trash removal
- Land surveying costs
- Cost to obtain plans/specs
- Permit and inspection fees
- Costs to correct **previously cited** health/safety/sanitary violations
- Outside improvements (landscaping, sidewalks, detached accessory structures)
- Plug-in appliances

See FEMA's Substantial Improvement/Substantial Damage Desk Reference for a more comprehensive list

Key Costs for Residential Structures

5 key elements make up over 60% of the structure and will determine SD for many residential structures.

Element	Percent of Overall Structure
Foundation	12%
Superstructure	13%
Interior Finish	13%
Doors & Windows	16%
Plumbing	8%

Verify Market Value of Structure

The market value of the structure (not including the value of the land) before the damage occurred.

Acceptable sources of cost information include:

- Assessed value of the structure, developed for property tax assessment purposes.
- Professional appraisals by a licensed professional appraiser.



See FEMA's Substantial Improvement/Substantial Damage Desk Reference for more information.

Verify Market Value of Structure

- If the applicant disagrees with the source of market value selected, they may hire a licensed property appraiser to submit a comparable property appraisal (for the total market value of only the structure) at their own cost.

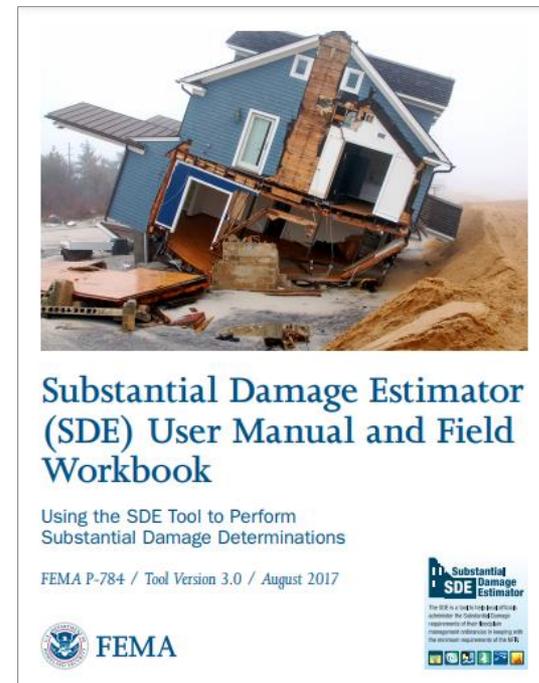
Make the SD Determination

$$\text{Percent Damage} = \frac{\text{Cost of Repairs}}{\text{Pre-Damage Market Value of Structure}}$$

**Does the Percent Damage
equal or exceed 50
percent?**

FEMA Substantial Damage Estimator (SDE) Tool

- Free software developed by FEMA to help community officials make SD determinations after natural disasters.
- Allows community officials to develop reasonable estimates of structure value and damage in accordance with the NFIP requirements.



FEMA Substantial Damage Estimator (SDE) Tool

- Uses the concept of damage estimates for individual structure elements to determine whether the entire structure is Substantially Damaged.
- Includes assessment options for residential structures and common non-residential structures.



Issue the Determination to Property Owner

- Determination should be communicated to property owner in an official letter (even if it's not Substantial Damage).
- Sample letters for different scenarios available in FEMA's *SI/SD Desk Reference*.

Sample Letter to Notify Property Owners of a Determination That Work Constitutes Repair of Substantial Damage

Notice of Substantial Damage Determination (Residential)

Dear Property Owner:

We have reviewed your recent application for a permit to repair your existing home that was damaged by [insert cause of damage]. The building is located in a mapped Special Flood Hazard Area. As required by our floodplain management regulations and/or building code, we have determined that the building has been substantially damaged. This determination is based on a comparison of the cost estimate of the work required to restore the building to its pre-damage condition to the market value of the building (excluding land value). When the cost to repair equals or exceeds 50 percent of the market value of the building, the work is repair of substantial damage.

As a result of this determination, you are required to bring the building into compliance with the flood damage-resistant provisions of the regulations and/or code [cite pertinent sections].

We would be pleased to meet with you and your designated representative (architect/builder) to discuss how to bring your home into compliance. There are several aspects that must be addressed to achieve compliance. The most significant requirement is that the lowest floor, as defined in the regulations/code, must be elevated to or above the base flood elevation (BFE) [or the elevation specified in the regulations/code]. You may wish to contact your insurance agent to understand how raising the lowest floor higher than the minimum required elevation can reduce NFIP flood insurance premiums.

Sample Letter to Notify Property Owners of a Determination That Work Does NOT Constitute Repair of Substantial Damage

Notice of Determination (Residential)

Dear Property Owner:

We have reviewed your recent application for a permit to repair your existing building that was damaged by [insert cause of damage]. The building is located in a mapped Special Flood Hazard Area. As required by our floodplain management regulations and/or building code, we have determined that the work proposed to repair the damage does not constitute repair of substantial damage. This determination is based on a comparison of the cost estimate of the work required to restore the building to its pre-damage condition to the market value of the building.

Please be advised that we will make another determination if you elect to perform work other than what is necessary to repair the damage, such as additional renovations or upgrades or building an addition. Construction activities that are undertaken without a proper permit are violations and may result in citations, fines, or other legal action.

from the Nation-
Increased Cost of
help pay for work
the ICC claim may
for home, or mov-

that incorporate
proper permit are

Appeals of SD Determinations

The property owner may appeal an SD determination on the basis of:

- Repair costs that should be included/excluded
- Inappropriate valuations of costs for proposed work
- Inappropriate method to determine market value of building

Permit Development

For repairs determined to be SD:

- Must be brought into compliance with SI/New Construction requirements in your community ordinance:
 - Lowest floor elevated to/above Base Flood Elevation (+1 foot - - NH State Building Code)
 - Basements not allowed
 - Enclosure requirements
 - Protection of utility systems
 - Use of flood damage-resistant materials
- Specific requirements vary by zone (e.g., A zones vs. V zones)

Permit Development

For repairs determined NOT to be SD:

- Work does not need to meet the ordinance requirements that apply for SI and new construction.
- Check your ordinance to determine other requirements that may apply (e.g., if site is located in the floodway, etc.)
- Encourage voluntary mitigation measures to reduce future flood risk.



Flood Damage-Resistant Materials Requirements

for Buildings Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program

Technical Bulletin 2 / August 2008



Protecting Building Utility Systems From Flood Damage

Principles and Practices for the Design and Construction of Flood Resistant Building Utility Systems

FEMA P-348, Edition 2 / February 2017



Ordinance Enforcement

Failure to enforce the SD provision of your community ordinance can result in negative ramifications for both the community and structure owner:

- The building will be more susceptible to future flood damage which could be costly.
- The flood insurance premium for the building may be significantly higher. This may make the structure difficult to sell.
- Communities that fail to enforce their ordinance may be suspended from the NFIP.

Maintain Required NFIP Documentation

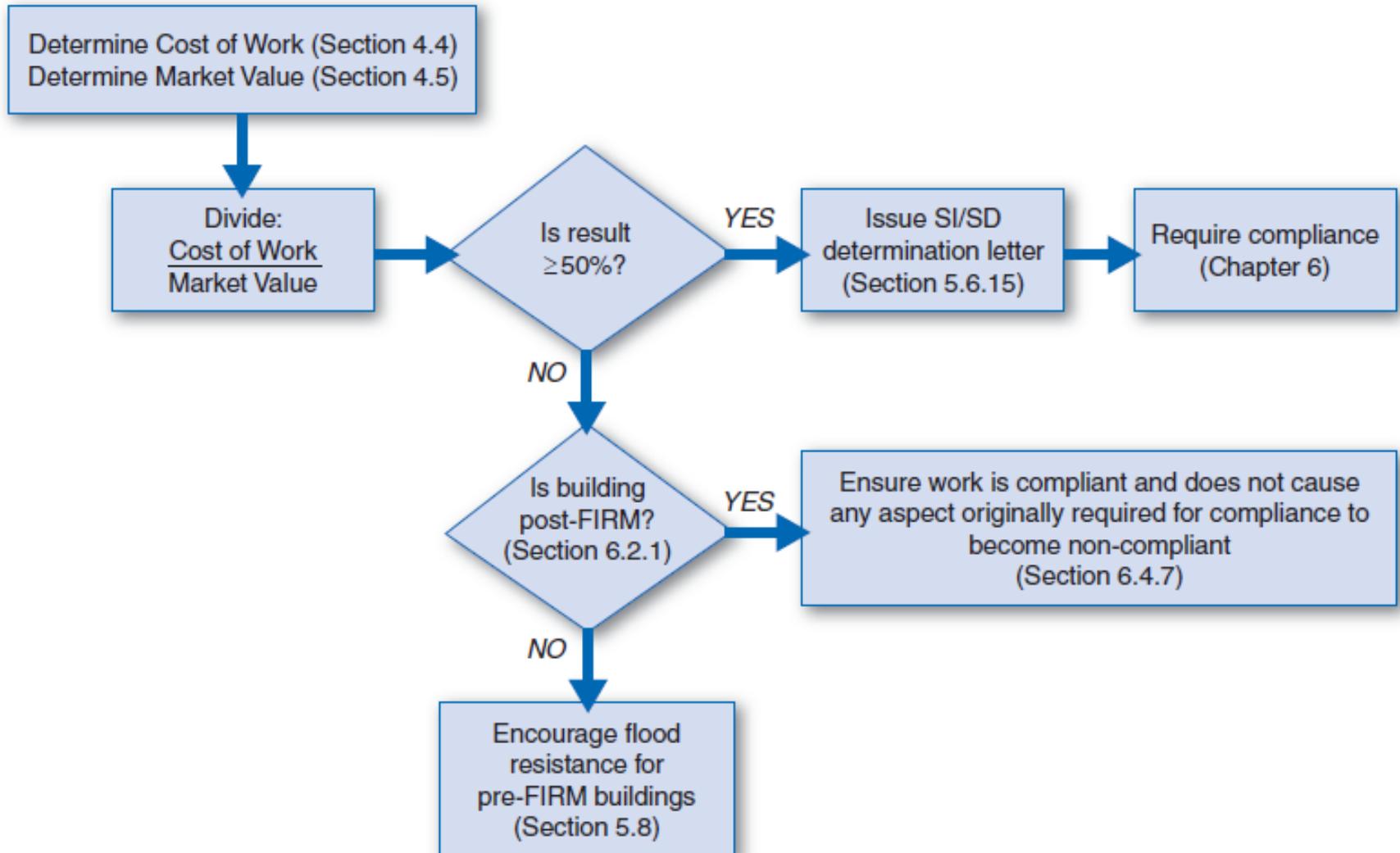
- Permit applications and supporting docs.
- Documentation of SI/SD determinations including:
 - Community determination calculation.
 - Official determination letter to property owner.
 - Historic structures documentation (if applicable).
- As-built elevation data for new construction and SI/SD buildings, post-construction.
- Any variance proceedings, including justifications/notifications.
- Any other documentation/certifications required in community floodplain ordinance.

Best Practices

Ensure SD determinations are consistent and fair:

- Use written procedures that meet the NFIP requirements and SD guidance.
- Use the same methods for building market value and damage estimates on a community-wide basis.
- Implement the procedures on a consistent basis to make fair and defensible determinations.
- Document decisions and maintain all required records in community files.

Summary of SD Determination Process



Preparing for a Large-Scale Disaster



The Post-Disaster Environment

- There will be pressure from officials and property owners to start repairs.
- Property owners:
 - may attempt to disregard the need for permits.
 - will, in all likelihood, be unaware of the SD requirements.



Advance Preparations

- Can reduce:
 - the amount of work that needs to be done after a disaster.
 - your stress level!
- Help ensure that SD determinations are made quickly, consistently, and fairly across your community after a disaster.



Create Post-Disaster Procedures Beforehand

- Define your post-disaster permitting procedures ahead of time.
- Document the details of the SD process:
 - Community responsibilities and staffing
 - How will the SD determinations be made?
 - Available data sources
 - Steps to take if a building is determined to be SD

Staffing

- Who will be responsible for permitting and making SD determinations?
- Develop a strategy for increasing staffing capacity – e.g., Mutual Aid agreements.
- How will additional staff be trained?
 - Be aware of resources for quickly getting staff up to speed.



Community Outreach

- Inform residents about SD determinations and the need for permits **as quickly as possible after the disaster.**
 - Ensure property owners understand what is required before they can start to rebuild.
- Make sure elected officials and community staff understand the requirements too, so that everyone's on the same page.



Communicate with Your Residents

- Determine the method for distributing the requirements for permits as quickly and widely as possible. Options include:

<i>Community website & social media</i>	<i>Door-to-door hand deliveries</i>
<i>USPS</i>	<i>Handouts at community facilities</i>
<i>Newspaper notices or articles</i>	<i>PSAs on TV or radio</i>
<i>Handouts at post-disaster recovery meetings hosted by the community, State or FEMA</i>	<i>Handouts at hardware, building supply and equipment rental stores</i>
<i>Handouts at local insurance agencies</i>	<i>Handouts at churches and community centers</i>

Gather Data Ahead of Time

- Create a list of buildings located in the Special Flood Hazard Area in your community ahead of time.
- Pre-identify the sources of information you can access to determine market value and cost of repairs quickly and cheaply.
- FEMA Substantial Damage Estimator (SDE) tool can be pre-populated ahead of time with data.



Assess Damage in the Field

- If your community has the available staff, door-to-door inspections to assess damage are recommended **as soon as safely possible**.
- Define the SD inventory area:
 - Areas of your community in the Special Flood Hazard Area (SFHA) that have sustained damage during the disaster.



Prepare Inspectors for Field Work

- Review methods for estimating damage.
- Review access protocol.
- Review safety procedures.
- Notify police of proposed inspection schedule and daily work areas in advance.



Assessing Damage

- Add the SFHA boundaries to maps that inspectors will use in the field.
- If possible, have a list of property addresses in the SFHA.
- Use a checklist tailored to your community or SDE tool to assess the damage for each structure.
- Take plenty of photos of the damage.
- Determine which structures may be unsafe to enter and that will require emergency repairs to prevent additional damage, such as roof repairs.
- Follow safety protocols!

Make the SD Determination

- Make sure your SD determinations are defensible. Consistency is key!
- Pay special attention to SD determinations that end up close to the SD threshold (40-60%).
- Be aware that property owners may have an incentive to show **less damage** than actually occurred to avoid the cost of bringing the building into compliance OR to show **more damage** than actually occurred for insurance or grant purposes.

Issue the SD Determinations

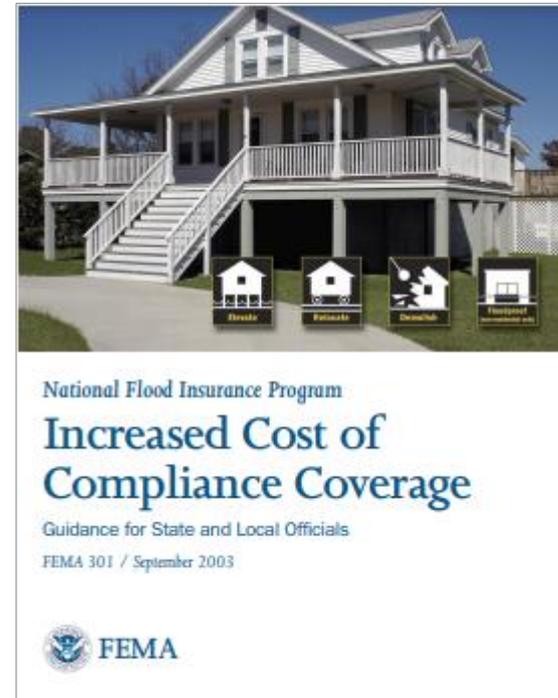
- Consider issuing letters with a preliminary determination first, and request that the property owner meet with you to obtain their permit and receive the final determination.
- Then if the property owner provides more detailed/accurate information at the follow up meeting that indicates the preliminary determination should be changed, it can be, as needed.
- The meeting is also an opportunity to review with the property owner the ordinance requirements that will apply and answer any questions about them.

Connections with FEMA Grants and Flood Insurance



Increased Cost of Compliance (ICC) Coverage

- Additional funds for property owners with an NFIP flood insurance policy after a flood.
- The structure must be located in the Special Flood Hazard Area and either meet the criteria of a repetitive loss structure **or be Substantially Damaged due to flooding.**
- In latter case, a copy of the community SD determination letter is required.
- Close coordination between community and the property owner is usually involved.



ICC Coverage, cont.

- Claims are filed with the flood insurance company. (Not a grant).
- Provides up to \$30,000 bring building into compliance with community floodplain ordinance.
- Can be assigned to community as serve as cost-share match for a FEMA hazard mitigation grant project.

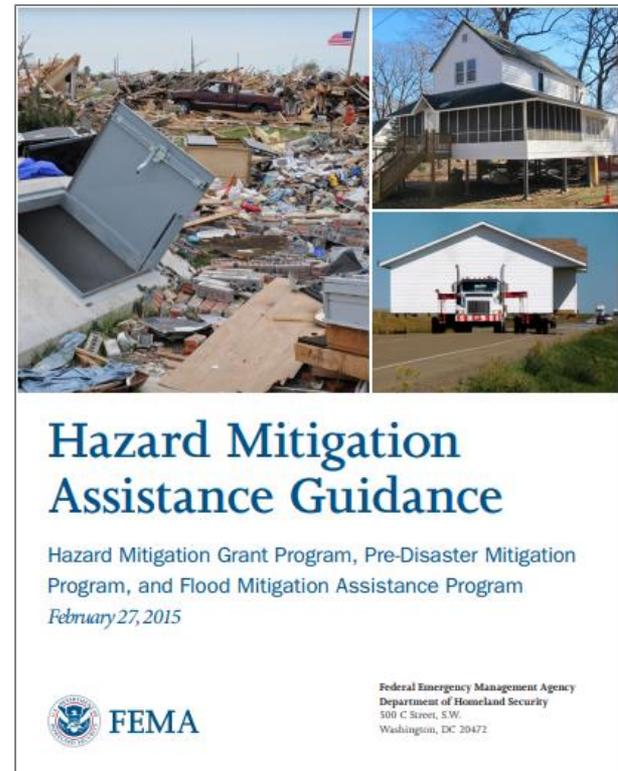


FEMA Hazard Mitigation Grant Applications

Substantial Damage Waiver: expedited cost-effectiveness methodology for property acquisition projects that involve a building with an SD determination.

The acquisition of structures that are declared Substantially Damaged and located in a riverine Special Flood Hazard Area on a preliminary or effective flood map is considered cost effective.

- Hazard Mitigation Grant Program (HMGP)
- Flood Mitigation Assistance (FMA)
- Building Resilient Infrastructure and Communities (BRIC)



Disaster Recovery Reform Act (DRRA)

Section 1206

Communities may apply for **Public Assistance program funds** to administer and enforce building codes and their floodplain management ordinance following a major disaster declaration.

- Hiring and training staff to conduct related activities.
- Reviewing/processing building permits and compliance certificates.
- Conducting building inspections.
- Making Substantial Damage determinations.
- Providing educational services to the public on floodplain requirements.



FEMA

**Building Code and Floodplain Management
Administration and Enforcement**

FEMA Policy FP 204-079-01

BACKGROUND

The Disaster Recovery Reform Act of 2018 (DRRA), amended Sections 402 and 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), and authorized FEMA to "provide assistance to state and local governments for building code and floodplain administration and enforcement, including inspections for substantial damage compliance"¹ and "base and overtime wages for extra hires to facilitate the implementation and enforcement of adopted building codes for a period of not more than 180 days after the major disaster is declared."² This policy enacted through FEMA's Public Assistance (PA) Program implements section 1206 of DRRA by leveraging the amendments to Section 402 and Section 406. While the provisions of this policy apply only to the PA Program, assistance under section 1206 of DRRA may be available under other FEMA programs, such as FEMA's Federal Insurance and Mitigation Administration's (FIMA) Substantial Damage Data Collection Contracts, described in more detail in Section D below.

PURPOSE

This policy defines the framework and requirements for consistent and appropriate implementation of section 1206 of DRRA through the PA Program. The intent of this policy is to provide communities with the resources needed to effectively administer and enforce state and locally adopted building codes and floodplain management ordinances for a period of no longer than 180 days after the date of the major disaster declaration.

PRINCIPLES

1. Increase the overall speed of recovery by providing assistance to conduct building inspections, review disaster-related development in the floodplain, review applications for permits, and issue permits to adequately administer and enforce adopted building codes and floodplain ordinances.

¹ Section 402 Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288 as Amended.
² Section 406 Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288 as Amended.

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Going Beyond Minimum NFIP Requirements



Incorporating Higher Standards

- SI/SD: the only provisions in your floodplain ordinance that will reduce risk to existing structures.
- Consider adopting higher standards into the ordinance that will increase the effectiveness of these provisions.



Cumulative Substantial Damage

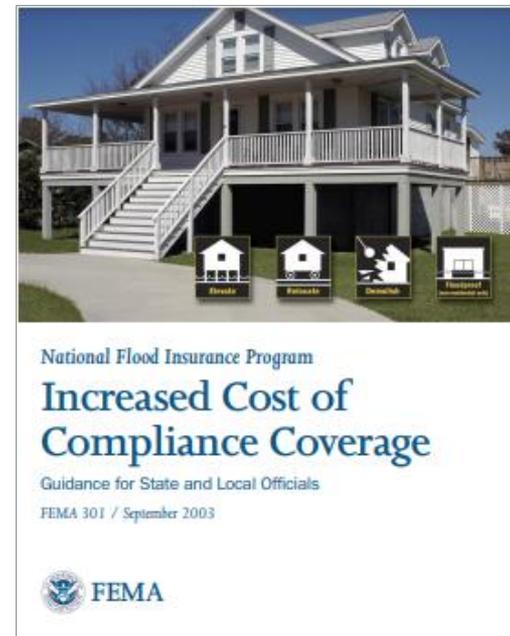
- Adopt an ordinance with updated language in the SD definition to capture repair of damage over a particular timeframe.
- Communities should have detailed written procedures on how damage will be tracked cumulatively.
- Credit for communities that participate in the Community Rating System (CRS) (Maximum credit: up to 90 points for cumulative SI/SD).

Lower Threshold for Substantial Damage

- Adopt an ordinance with updated language in the SD definition to lower the % threshold (e.g., 40% or 30% instead of 50%).
- See Section 5.7.2 of SI/SD Desk Reference.
- Credit for communities that participate in the Community Rating System (CRS) (*Maximum credit: 20 points – must include lower threshold for both SD and SI for full credit*).

Higher SD Standards and ICC

- For a damaged building to be eligible for ICC funds after a flood disaster, the standard SD threshold (50%) achieved as a result of damage from one event (as opposed to cumulatively across multiple events) must be met. **OR**
- The community may also choose to adopt a repetitive loss provision into their ordinance which can also trigger ICC eligibility.
 - Flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.
- For more information see [Increased Cost of Compliance \(ICC\) Coverage: Guidance for State and Local Officials](#).



Community Rating System (CRS) Credit for Substantial Damage Plan

- Community plan to prepare for SD estimates and determinations after a disaster.
- Newly creditable activity under Activity 510 (Floodplain Management Planning).
- Guidebook and plan template coming soon.

Up to 140 points

- Basic Plan Credit – Pre-flood efforts
- Additional Credit for pre-populating the Substantial Damage Estimator
- Additional credit when mitigation alternatives are considered

Resources/Wrap Up



Resources

FEMA Resources

- [Substantial Improvement / Substantial Damage Desk Reference](#)
- [Answers to Questions About Substantially Improved/ Substantially Damaged Buildings](#)
- [Substantial Damage Estimator \(SDE\) Tool](#)
- [DRRA Section 1206 – Policy Guidance](#)
- [Increased Cost of Compliance \(ICC\) Coverage: Guidance for State and Local Officials](#)
- [2021 Addendum to CRS Coordinators Manual](#)

NH Resources

- NH Floodplain Management Program website – Substantial Damage page
- [NH Flood Hazards Handbook for Community Officials](#)

More Training

- FEMA/ISO CRS Webinar, 5/19, 1-2pm
 - [CRS and Substantial Damage Management Plans](#)
- FEMA Emergency Management Institute Web Courses:
 - [IS-284.A: Using the Substantial Damage Estimator 3.0 Tool](#)
 - [IS-285: Substantial Damage Estimation for Floodplain Administrators](#)

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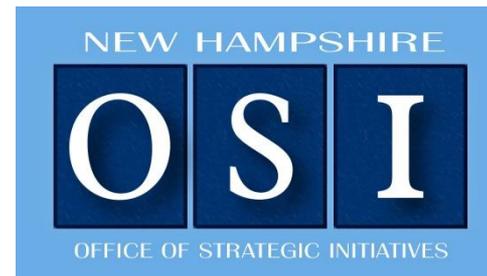
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